



National Aeronautics and Space Administration

Lyndon B. Johnson Space Center  
Houston, Texas



### Communities commit

The JSC and Clear Lake communities pitch in to give the child care facility new playgrounds. Story on Page 3.



### Coming home

Atlantis undocks with the Russian Mir space station to bring home the Mir 18 crew. Photo on Page 4.

# Space News Roundup

Vol. 34

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No. 27

## Atlantis-Mir Forging the space future

By Kelly Humphries

As television cameras switched from farewell ceremonies inside the Mir space station to a view of Earth below and hatches were readied for closure, day broke on Atlantis-Mir and a new era of cooperation Monday.

Please see HISTORIC Page 3



JSC

# Ticket Window

The following discount tickets are available for purchase in the Bldg. 11 Exchange Store from 10 a.m.-2 p.m. Monday-Thursday and 9 a.m.-3 p.m. Friday. For more information, call x35350 or x30990.

**Justin World Bullriding Championship:** 7:30 p.m. at the Summit. Tickets cost \$10 for 8 p.m. Aug. 18, \$15 for 8 p.m. Aug. 19 and \$18 for 4 p.m. Aug. 20.

**Ringling Bros. Circus:** 11 a.m. July 29 at the Summit. Tickets Cost \$10. Tickets on sale until July 14.

**Country and Western Dinner/Dance:** 7:30 p.m. July 29 at the Gilruth Center. Tickets cost \$12.

**Loving Feelings Concert:** 7 p.m. Sept. 30 at the Summit. Tickets cost \$32.50.

**Schlitterbahn:** Tickets cost \$17.80 for adults and \$15.30 for children 3-11.

**Sea World:** Tickets cost \$23.50 for adults and \$16.25 for children 3-11.

**Six Flags:** Tickets cost \$23.70 for a one day pass, \$31.75 for two day pass and \$20.30 supersaver not valid on weekends in June July and August.

**Astroworld:** Tickets cost \$18.10.

**Splashdown:** Tickets cost \$11.05.

**Fiesta Texas:** Tickets cost \$20.35 for adults and \$15.80 for children 4-11 and seniors over 55.

**Moody Gardens:** Discount tickets for two of three different attractions: \$9.50

**Space Center Houston:** Discount tickets, adult, \$8.75; child (3-11), \$7.10.

**Metro tickets:** Passes, books and single tickets available.

**Movie discounts:** General Cinema, \$4.75; AMC Theater, \$4; Sony Loew's Theater, \$4.75.

**Stamps:** Book of 20, \$6.40.

**JSC history:** *Suddenly, Tomorrow Came: A History of the Johnson Space Center.* Cost is \$11.

**Upcoming Events:** Sam Houston Raceway Park discount packages available soon. ASTP party tickets available soon.

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# Gilruth Center News

**Sign up policy:** All classes and athletic activities are first come, first served. Sign up in person at the Gilruth Center and show a NASA badge or yellow EAA dependent badge. Classes tend to fill up two weeks in advance. Payment must be made in full, in exact change or by check, at the time of registration. No registration will be taken by telephone. For more information, call x30304.

**EAA badges:** Dependents and spouses may apply for photo identification badges from 7 a.m.-9 p.m. Monday-Friday; and 8 a.m.-4 p.m. Saturdays. Dependents must be between 16 and 23 years old.

**Softball:** Registration will take place July 17-21. For more information call x33345.

**Weight safety:** Required course for employees wishing to use the weight room is offered from 8-9:30 p.m. July 12 and July 27. Pre-registration is required. Cost is \$5.

**Defensive driving:** Course is offered from 8:15 a.m.-3 p.m. Saturday. Next class is July 8. Cost is \$19.

**Exercise:** Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays.

**Aerobics:** High/low impact class meets from 5:15-6:15 p.m. Tuesdays and Thursdays. Cost is \$32.

**Aikido:** Martial arts class meets from 5-7 p.m. Tuesdays and Wednesdays. Cost is \$25 per month. New classes begin the first of each month.

**Ballroom dancing:** Cost is \$60 per couple. For additional information call the Gilruth Center at x33345.

**Fitness program:** Health Related Fitness Program includes a medical examination screening and a 12-week individually prescribed exercise program. For more information, call Larry Wier at x30301.

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## Property

Rent: Condo off El Dorado, W/D & kitchen appliances, upstairs, \$380/mo + \$250 deposit, ref req. Richard, x31488 or 286-6915.

Sale: Webster condo, 2-2-2CP, FPL, ceiling fans, mini blinds, new dish washer, refrigerator, W/D conn, \$39.9k. x47513 or 280-0285.

Sale: Friendswood, Regency Estates, 3-2-2, new carpet/roof/paint, \$84.5k. 864-1037.

Sale: Canyon Lake, Village West, 3-2, .25 acre, satellite, gazebo, waterfall, \$130k. 210-899-3447.

Rent: Condo, Clear Lake, 2-1-CP, tennis courts, marina, exercise room, 24 hr security, \$650/mo incl utilities. x30246 or 480-5583

Lease: Friendswood/Pearland area, FPL, large yard, cathedral ceilings, \$625/mo. 992-5447.

Lease: Webster condo, lg upstairs w/balcony, 2-1, W/D conn, appliances, FPL, ceiling fans, new hi efficiency A/C, \$495/mo. 486-0315.

Lease: Pipers Meadow, nice clean house, 3-2A, fenced, all brick, ceiling fans, avail 8/01/95, \$760/mo. 486-0315.

Sale: Newport subdivision, 3-2-2, new roof and A/C, FPL, security system, hot tub, \$74.9k. x47113 or 332-6257.

Rent: Heritage Park, 3-2-2, new carpet/paint, covered patio, no pets, \$875/mo. Mike, 282-2787 or 286-1691.

Rent: Friendswood, both formals, den, FPL, screened porch, Jen-Air kitchen, \$900/mo + dep. Mark, 282-5271.

Sale: Cedar point, Livingston, 4 lots, 30'x70' ea, \$12k/all + closing cost. x34142.

Rent: Waterfront efficiency apt, furnished, utilities paid, except phone, no pets, non-smokers, avail mid-July, \$395/mo. x48882 or 532-1725.

Sale: Dickinson Bayou, waterfront, 5 acre lot, new bulkhead, beautiful trees, \$75k. x31370.

Rent: El Dorado Trace condo, furnished/unfurnished, 2-2, FPL, hot tub, pools, make offer. 333-8126 or 488-1327.

Sale: Lot, League City, Maria off Texas, \$6.5k. 333-5493.

Rent: Arkansas cottage on Blue Mt Lake, huge stone FPL, screened porch, \$250 w/ky, \$50 dly. Corcoran, x33005 or 334-7531.

Rent/Sale: Waterfront condo, 201A, Cape Royale, Lake Livingston in Coldsprings, TV & VCR, 2 BDR, sleeps 6, wknd/wkly/dly. Barbara, 337-1494.

Rent: Condo on the Seawall, Galveston, 2-2, 7/1 - 7/15 & 10/28-11/4/95, sleeps 6. Carolyn, 488-7509.

Rent: Crystal Beach, Galveston county, beach cottage, sleeps 11, wkly/wknd. x32805 or 409-686-4419.

Rent: Galveston condo, furnished, sleeps 6, Seawall Blvd & 61st St, cable TV, wknd/wkly/dly. Magdi Yassa, 333-4760 or 486-0788.

## Cars & Trucks

'66 Bonneville convertible, ex cond. John,

x38988 or 482-6364.

'87 Nissan 200-SX XE hatchback, red, ex cond, auto, pwr, sunroof, A/C, AM/FM/cass, 97k mi, \$4.2k. 282-3229 or 286-4547.

'91 Corvette, black, w/black interior, 42k mi, 6 spd, AM/FM/cass Bose stereo, low tire warning system, \$22k obo. Tony, x30699 or 286-2937.

'84 Chevy Blazer, red & silver, Tahoe pkg, rally wheels, \$3k. 648-8960 or 326-2093.

'93 Nissan Sentra XE, Ltd Ed, 4 dr, std, pwr options, cruise, 22k mi, ex cond, \$8.5k obo. Dilhar, 480-3233 or 488-2549.

'90 Acura Integra GS, 4 dr, auto, P/W, 80k mi, A/C, AM/FM/cass, silver. Warren, 997-9839.

'84 Ford Bronco 4x4, full sz, auto, \$2.5k. 326-2093 or 648-8960.

'85 Ford LTD Brougham, silver, 70k mi, auto, pwr, runs great, \$2.8k. Nathan, x34308 or 332-9382.

'75 El Camino, runs, best offer. 286-1254.

'82 Toyota Tercel, blue, 4 dr sedan, 128k mi, good cond, 5 spd, A/C, \$700. x31695 or 532-1089.

'88 Corsica, 62k mi, PS, AT, A/C, AM/FM stereo, \$3.2k. Scott, x34614 or 334-2278.

'94 Z28 Camaro, green, loaded, CD, auto, low miles, \$17.9k. Lydia, x46154 or 409-938-8972.

'80 Olds Delta 88, good work car, \$500. x37340.

'89 VW Jetta, A/C, auto, AM/FM/cass, sunroof, 52k mi, \$4.2k. x39140 or 280-9105.

'87 Mazda RX7, 105k mi, runs great, extras, \$4.5k. Jason, x37753 or 326-5612.

'92 Ford Explorer, emerald green, ex cond, garaged, \$15.8k. 280-8155.

'94 Toyota PU, 2W/D, garnet red, AM/FM/cass, A/C, bed liner, \$9.8k. 333-5900.

## Cycles

'91 Suzuki RM 125 dirt bike, ex cond, \$1.9k. x38741 or 945-5576.

Kawasaki Voyager 1300cc touring bike, loaded, ex cond, 45k mi, \$3.8k. Mark, x32125 or 334-5113.

Schwinn 12 spd road bike, Shimano gears, ex cond, 23" - 58cm frame, \$100. 332-2877.

Dupont Tri spoke ultra-lite composite wheels, new \$1.1k sell \$550/both. 464-8694.

## Boats & Planes

'88 Invader, 210 cuddy cabin, I/O 200hp Merc, galv trailer, loaded, great condition. 997-6141.

Laser 2 sailboat w/trailer, spinnaker rigged, trap, vest, \$1k obo. x41095 or 486-8185.

Sailboat, 16' Dolphin, senior complete w/trailer, \$700. Tom, x39040 or 332-6419.

Sovereign, 24' sailboat, main, jib, 125% Genoa, depth sounder, head, stove, electric Johnson OB, obo. Mike, 282-2787 or 286-1691.

## Audiovisual & Computers

Compaq Proliner 486 DX2-66, 4 Mb, 420 HD,

JSC

# Dates & Data

## Today

**American Heritage Day Program:** A celebration of JSC employee cultural diversity from 3-8 p.m. July 7 in the courtyard area behind Bldg. 1. Food, music, entertainment and special guests. For more information call Estella Gillette on x30603.

**Cafeteria menu** — Special: baked chicken. Total Health: roast beef au jus. Entrees: deviled crab, baked chicken, beef cannelloni, steamed pollock, Reuben sandwich. Soup: seafood gumbo. Vegetables: seasoned carrots, peas, breaded okra, steamed cauliflower.

## Saturday

**Star gazing:** The JSC Astronomical Society invite the public to view the summer skies through telescopes from dusk-10 p.m. July 8 at Challenger 7 Memorial Park. For more information call Bill Williams at 339-1367.

## Monday

**Cafeteria menu** — Special: hamburger steak. Total Health: vegetable lasagna. Entrees: beef Burgundy over noodles, barbecue smoked link, vegetable lasagna, steamed fish, French dip sandwich. Soup: chicken and wild rice. Vegetables: buttered corn, steamed spinach, vegetable sticks, navy beans.

## Tuesday

**Scholarship rally:** The Galveston County A & M club will host its annual scholarship rally July 11 at El Mina Shrine Temple. R. C. Slocum will be the featured speaker. Advanced Tickets cost \$11. For more information call Rob Way at 332-3077.

**Cafeteria menu** — Special: turkey and dressing. Total Health: roast turkey. Entrees: barbecue spare ribs, liver and onions, baked chicken, steamed fish French dip

sandwich. Soup: black bean and rice. Vegetables: steamed broccoli, California vegetables, breaded squash, savory dressing.

## Wednesday

**SSFF meets:** The Space Station Future Fighters will meet at noon July 12 at the Freeman Memorial Library at 16602 Diana. For information call David Cochran at 335-0185.

**MAES meets:** The Society of Mexican American Engineers and Scientists will meet at 11:30 a.m. July 12 in the executive dining room in the Bldg. 3 cafeteria. For more information call Michael Ruiz at x38169.

**Astronomy seminar:** The JSC Astronomy Seminar will meet at noon July 12 in Bldg. 31, Rm. 129. A video will be shown of Dr. C. Dermer discussing "Gamma Rays from Active Galactic Nuclei." For more information, call Al Jackson at 333-7679.

**Toastmasters meet:** The Space-land Toastmasters will meet at 7 a.m. July 12 at House of Prayer Lutheran Church on Bay Area Blvd. For additional information, contact Elaine Trainor, x31034.

**Cycle club:** The Space City Cycle Club will meet for a 25-mile ride beginning at 6 p.m. July 12 at the University of Houston Clear Lake soccer field. For more information on this ride and weekend rides call Mike Prendergast at x45164.

**Cafeteria menu** — Special: Mexican dinner. Total Health: ground turkey tacos. Entrees: beef cannelloni, turkey tacos, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: peas and carrots, ranch beans, mustard greens, Spanish rice.

## Thursday

**Cafeteria menu** — Special: smothered steak. Total Health: steamed pollock. Entrees: chicken and dumplings, corned beef and

cabbage, broccoli cheese quiche, steamed fish, French dip sandwich. Soup: navy bean soup. Vegetables: steamed cabbage, cauliflower au gratin, buttered carrots, lima beans.

## Friday

**Cafeteria menu** — Special: baked meatloaf. Total Health: baked potato. Entrees: chicken fajitas, ham steak, pork and beef eggrolls, steamed fish, Reuben sandwich. Soup: seafood gumbo. Vegetables: stewed tomatoes, seasoned spinach, cut corn, macaroni and cheese.

## July 13

**NCMA Seminar:** The National Contract Management Association is holding a Completion Form Contracting Seminar from 8 a.m.-noon July 13 in the Teague Auditorium. For more information call C. C. de la Garza at x33258 or Mary Kerber at 486-9264.

**Airplane club meets:** The MSC Radio Control Airplane Club will meet at 7:30 p.m. July 13 at the Clear Lake Park Community Bldg. For more information call Bill Langdoc at x35970.

## July 15

**Lunar run:** The Loral Lunar Rendezvous Run will be held beginning at 8 a.m. July 15 at the Gilruth Center. Entry to the 5K run or 2-mile walk is \$12. Participants receive t-shirts, refreshments and are eligible for door prizes. Applications are available at the Gilruth Center. For more information call Dennis Halpin at x36093.

## July 17

**Spaceweek lectures:** The Galveston Bay Section of the Institute of Electrical Engineers will host a noon-time seminar on "Space: Brining the World Together," in the Teague Auditorium. For more information call Cliff Mason at 335-6897.

# Swap Shop

14" SVGA monitor, 2 x CD-ROM, Sound Blaster-16 sound card, 2 spkrs, 14.4 fax/modem, mouse, keyboard, pre-loaded S/W, \$21k obo. 648-4555.

Delco 2001 AM/FM/CD car stereo, 16 w/channel, 7 band EQ, 12 preset stations, \$80. 333-7167.

TI-6400 computer, kids/teens software. Fred, 944-3523.

AIWA #AXR-004 stereo audio/video recvr w/remote, \$120 obo; sony compact disc player w/full function remote, \$75 obo; Sanyo VHR 9370 dbl azimuth, 4-head, VHS VCR w/remote, needs service, \$35 obo. Lisa, x40213 or 554-4140.

Mac SE, 4 Mb memory, 20 Mb HD, mouse, keyboard, \$375. 488-7771.

MYST CD ROM game for Mac computers, Strategy guide included, \$45. Ron, 244-8200.

Freelance, Dashboard, Microsoft C compiler, Borland Prolog, Aces Over Europe, Battledome, Alpha 4, Railroad Tycoon, many more software titles. Jeff, x31975 or 286-1935.

Radio Shack answering machine, digital incoming/outgoing messages, time/date stamp, \$40. 333-2263.

Atari 800, Indus GT drive & Epson Apex 80 printer, \$200. Keith, 335-2514 or 332-9414.

Mac Performa 600, 8 Mb RAM, 160 Mb HD, 14" Apple color plus monitor, full-sz 101 keyboard, mouse, Sys 7.1P, 9600 Baud fax/modem, 3 Nubus slots, \$850; Mac Imagerwriter II printer, \$120. 280-7432 or 488-4382.

Macintosh SE, 30 Mb HD, carrying case, \$550 obo. x31892 or 332-6141.

Citizen printer "CSX-140" w/GSX color option, \$199. Magdi Yassa, 333-4760 or 486-0788.

## Musical Instruments

Clarinet, Buffet B flat, wood, w/case, perfect for school band, \$350. Kathy, x39190.

## Pets & Livestock

Reticulated Python, M/F, 10'-12' long, awesome coloration, \$550/pr or \$375 ea. Brett, 333-6415 or 397-8388.

AKC Lab pups, black/blonde, born 5/17, ready 6/28, shots, wormed. Lois, x48123 or 409-925-7869.

Netherland Dwarf bunny rabbits, hutch w/water & food feeders. Rich, x47257 or 996-7630.

## Lost & Found

Lost a pair of men's bifocals in a reddish or maroon soft case. x48022 or x35435.

## Household

Dining table 7 pcs, w/matching sectional, \$550; sofa, chair & ottoman, white w/floral print, \$250; marble coffee table, \$60. x38835 or 482-5531.

Sofa, \$230; easy chair & ottoman, \$125; dining room table w/6 chairs, \$185; baby's furnished set, rattan crib/dresser/trundle, converts to twin, \$510. Scott, x34614 or 334-2278.

Natural wood table & 4 folding chairs, table

base & chairs solid wood, w/butcher block laminate table top, \$95. Jeff, x31975 or 286-1935.

Electric oven, 27" G.E. coppertone built-in wall mount oven, works great, \$50. Linda, 484-0987.

Frigidaire gas dryer, large capacity, auto cycles, ex cond, \$150. x48848 or 532-1725.

Kenmore wash/dryer, \$100/ea. x32567 or 488-3314.

Armoire, antique, \$300. x35484 or 486-5286.

Sears Kenmore refrigerator, 19.2 cu ft, frostless, works fine, \$100. "BK" x35563 or 486-0156.

Boys BDR furniture, dark oak veneer, wrap-around style, 5 pcs, dresser, corner unit, cabinet, 2 bookshelves, \$125 obo. 286-4255.

Medium size chest freezer, \$150. 867-8820.

Kenmore washer, 5 cycle, large capacity, ex cond, \$175. x48882 or 532-1725.

Electric dryer, white, works well, \$100; 2 queen size waterbeds, 1 semi-motion, 1 full motion, all access, \$75 & \$50. Dennis, x47113.

Dinette set, table, glass & rattan, 4 chairs, rust colored fabric & rattan, \$150. x49745 or 585-1031.

Large computer desk, \$65; desk chair, \$25; desks lamp, \$15 obo. x37113 or 280-3019.

Kenmore electric dryer, lg capacity, heavy duty, \$200. 286-8434.

Refrigerator, good cond, 4 section wall unit, 19" Sony TV, dining room table w/4 chairs, queen size comforter. 333-1789.

## Wanted

Want low priced Toyota, Nissan or Mazda pickup, also school/work car or truck. 271-7011.

Want carpooler from I-10 west, 290 north area to Clear Lake area, w/working hrs between 7 a.m. - 4 p.m. Racquel, x34167 or Bob, x35207.

Want personnel to join van pool, departing Southwest Park & Ride lot at 6:50 a.m. for JSC & offsite locations, 7:30 a.m. - 4:30 shift. Susan Gaynor, 282-5447 or Ed Rangel, x36124.

Want personnel to join VPSI Vanpool departing Meyerland Park & Ride lot at 7:05 a.m. for JSC, on-site workers, 8 a.m. - 4:30 p.m. shift, Travis Moebs, x45765 or Don Pipkins, x35346.

Want personnel to join VPSI van pool from Sugarland & southwest Houston to NASA area. Alice, x35234.

Want female roommate for 3-2.5 townhome, non-smoker & like cats. Lisa, 286-3828.

Want a set of left handed golf clubs. Bruce, 286-5677.



# Making a Difference

## Charity begins and ends in Clear Lake and JSC communities

By Gail Boyes

One small effort to ensure his daughter could take naps during her time at JSC's Child Care Facility, sent Tim Boyes of the Mission Operations Acquisition Management Team, off on a mission to recruit volunteers and donations from the local community.

His mission was accomplished and successful beyond his expectations.

"No one had thought about doing this before," said Fran Brockington, director of the child care center. "Tim opened new doors. We have gotten help in the past but not to such an extent."

Boyes became a playground committee volunteer and set off on a journey that began at Target.

There he asked the managers a simple question.

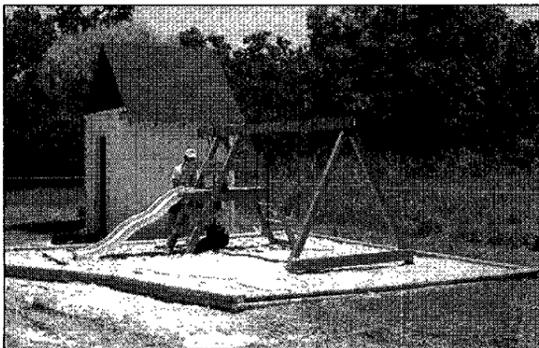
"Does your company donate to non-profit organizations whose concern is for the welfare of small children?" Their answer was "Yes," and four mini-blinds were donated.

Since the Child Care Center required eight more blinds to completely outfit the center, he checked with other establishments in the Clear Lake community that also sold mini-blinds. After checking with several retailers, he found that Lisa Anhauser of Linens-N-Things was willing to donate the remaining blinds on her company's behalf.

Boyes conveyed his success to Luanne Jorewicz, playground committee chair, and she in turn handed him the "wish" list for the center and sent him on his way.

After numerous phone calls, letters and personal appearances by Boyes and other volunteers of the center, the community responded with even greater generosity.

John Forsly of Furrows Building Supplies delivered a large swing set that volunteer parents set up. Mike White of Wolfe's Nursery provided two of the trees that are now part of the landscape. Astronaut Sam Gemar donated a third tree. Jim Garceau of Home Depot donated building supplies, including several bags of sand and cement,



sprayer tanks, a picnic table, 21 garden timbers and discounted supplies needed to build the new shade structure over the toddlers' play area. Jeff Yates asked Houston Shell and Concrete to donate and deliver sand for

new sandboxes and the ACRV structure—an early prototype shell of the Assured Crew Return Vehicle.

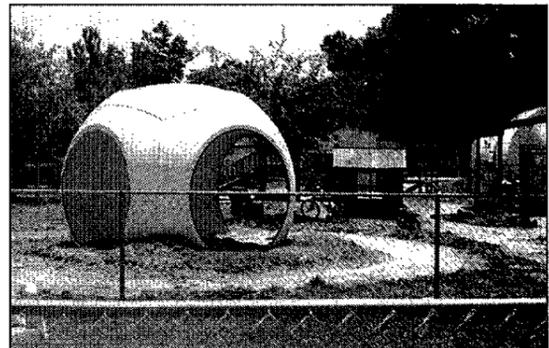
Jeff Dutton of Rent-Way provided a free day's rent for a Bobcat, tiller and post hole digger that enabled the dedicated volunteers to build a fence for the infant playground, distribute sand to the playgrounds and to plant new shrubs. Joe Calhoun of Lake Land Construction provided the loan of a flatbed trailer so that the Home Depot building supplies could be delivered to the center. Garry and Donna Fender helped by picking up and delivering fencing material. And one of the center's own teachers, Shana Stewart, donated the gate leading into the new infant's play area.

With all these donations, a workday was

organized to build the new playground for the children.

Workday volunteers included Chris Cerimele, Jeff Yates, Gary Rasco, Cory Logan and Kim Ess, who were instrumental in acquiring from JSC and/or setting up the ACRV play structure. Vincent Berend and Boyes recently built the new shade overhang to the toddler's playground on their own, and even continued working in a downpour.

Others who were responsible for the workday's success by attending were Lucy Yates, Gemar, Bob and Mary Mueller, Cheryl Thuot, Keith Fletcher, Joy and Tim Marion, Marybeth Edeen, Luanne and Michael Jorewicz, Carol Homan, Bob Ess, Gretchen Thomas, Lynn



Buquo, Paul Licht, Jim McDede, Chris and Mary Cerimele, Carol and Michael Evans, James Carvajal, Mark Reigert, Karen Frank, John and LaNell Cobarruvias and even a parent on the wait list, but still interested in helping the center—Susan Gomez.

The Cobarruvias family also donated trees/shrubs in honor of their daughter Taylor, who is leaving this year to go on to kindergarten. The Caregivers at the center—Fran Brockington, Diane O'Grady, and Barbara Rose—also gave of their time by watching the volunteer's children and helping to make sure the day was a success.

Each of these noted improvements will be enjoyed by hundreds of children over many years. The generosity of those companies and individuals noted and all the volunteers

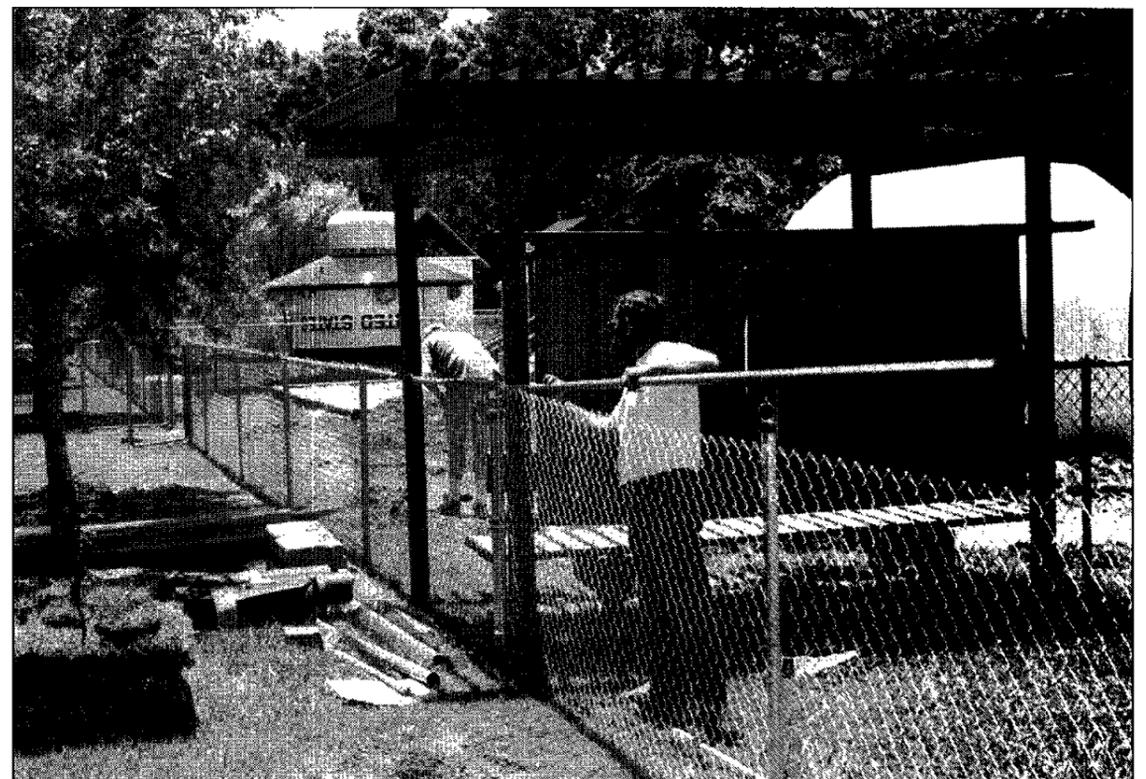
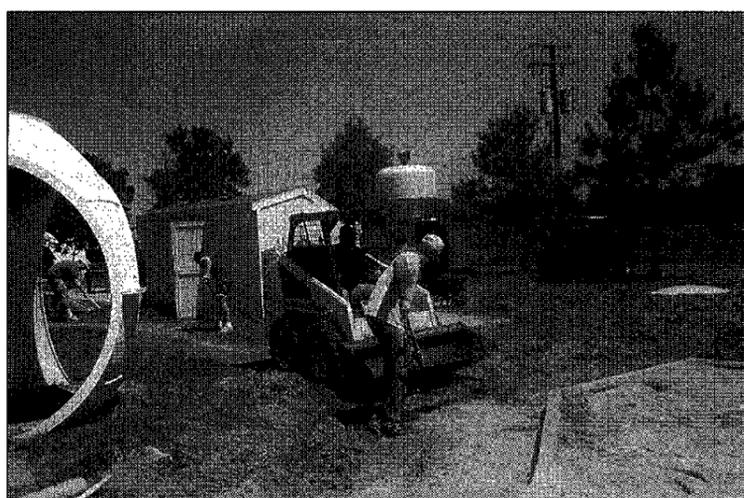
should make those in this community proud to be a resident of the Clear Lake area. □

*Editors note: The JSC Child Care Center is managed by Space Family Education, Inc., a non-profit corporation established over five years ago for this purpose. The center's goal is to provide quality child care for on-site employees of JSC and contractors. Membership of the Space Family Education, Inc., consists of parents, interest-*

*ed individuals and other JSC. A Board of Directors is elected every two years by the membership and is responsible for the hiring of a director, who provides day-to-day management. The present board, consisting of*

*Lucy Yates, Ann Bufkin, Sharon Licht, Marybeth Edeen and Karen Frank, were succeeded on July 1, by the following newly elected board: Tim Boyes, president; Vincent Berend, vice president; Gretchen Thomas, secretary; Sharon Licht, treasurer and Karen Frank, policies and procedures. The Facility Director is Fran Brockington.*

*The corporation was formed to provide parents and interested individuals at JSC with the control and operation of the facility and to relieve the U.S. Government and NASA of any liability associated with child care. The primary source of financial support is through tuition fees paid by the parents and through community support, including fundraising activities handled by volunteers from the membership.*



Volunteers spend a day creating new playgrounds for the children who attend the JSC Child Care Center. Supplies such as fencing, sand, trees, a truck to deliver the supplies and equipment to do the work were all donated by Clear Lake area merchants. From top to bottom, left to right: a Bobcat made the job of moving sand and dirt easier. Volunteers install a slide on a new swing set. New fencing protects the infants from older kids. New shade trees will give little ones protection from the hot Houston sun. A volunteer installs the new fence that leads to the infant play area that includes a shell mock-up of the assured crew return vehicle. The Bobcat helps bring sand to the new sandbox.

# Discovery launch dogs heels of Atlantis landing

With the 100th U.S. human space flight drawing to a close, the STS-70 crew of *Discovery* is ready to begin the 101st flight, which remains scheduled for launch Thursday.

The Tracking and Data Relay Satellite deployment flight, rescheduled behind STS-71 after industrious Florida woodpeckers chiseled nearly 200 holes in the ship's external fuel tank insulation, is scheduled for launch at 8:41 a.m. CDT July 13.

*Discovery* rolled back to the Vehicle Assembly Bldg. from Launch Pad 39B for repairs, and then repeated its crawlerway trip

to the pad a week later. The sixth TDRS in NASA's constellation of orbital relay stations was removed from *Discovery's* cargo bay and sent back to a maintenance facility for servicing while *Discovery's* tank insulation was patched.

Main engine compartment closeouts, final ordnance work, hypergolic tank pressurization, flight crew equipment stowage and countdown preparations began earlier this week. TDRS battery charging and external



tank closeouts were set for yesterday. Solid rocket booster closeouts are planned today, and the main engine flight doors are to be installed Saturday. Payload closeouts begin Sunday, and the launch team should be ready to begin the countdown Monday.

Commander Tom Henricks, Pilot Kevin Kregel and Mission Specialists Don Thomas, Nancy Currie and Mary Ellen Weber flew back to JSC for more training during the STS-71 mission, and

will return to the Cape on Monday.

With *Discovery's* launch now set for mid-July, the STS-69 mission of *Endeavour* moves to the last week in July. Launch is tentatively set for July 30.

*Endeavour's* five-man crew, led by Commander Dave Walker, is preparing for the deployment and retrieval of the Wake Shield Facility and a SPARTAN science satellite and a space walk by Jim Voss and Mike Gernhardt to test tools and techniques which will be used in the construction of the International space station.

## Registration for UH on site courses soon

JSC employees may register this month for graduate engineering courses to be held on-site and at University of Houston.

In cooperation with the Cullen School of Engineering at the University of Houston, JSC will again be offering a graduate engineering courses on-site via satellite for the Fall 1995 term.

A total of eight classes will be available via satellite. Classes include required courses for both Industrial and Aerospace Engineering and other graduate elective courses.

As a convenience to employees and contractors, on-site registration for the on-site course and all other UH engineering courses will be held from 10:30 a.m.-2 p.m. July 25 in the lobby of Bldg. 45.

Registration forms for UH are available in the Human Resources Development Branch, Bldg. 45, Rm. 146. JSC employees may submit a completed Form 75 as payment for their engineering courses. Contractor employees will receive an invoice from UH.

Employees interested in applying for admission to UH, may fill out an application that will be available at the registration site.

All applicants for admissions and all new students must bring their undergraduate transcript with the degree posted. All new students should keep in mind that only six hours taken as a post-baccalaureate student may be transferred to graduate credit.

For more information, contact Kazuko Hall at x33075.



NASA photo

**Atlantis undocks from the Russian Mir Space Station Tuesday after several days of joint experiments. The orbiter brings back the Mir 18 crew, Commander Vladimir Dezhurov, Flight Engineer Gennadiy Strekalov and Astronaut Researcher Norm Thagard.**

## Fire hazard class available

The Safety Learning Center is putting out a call for employees interested in participating in a "Fire Hazards in Oxygen Systems" class.

The class teaches students how to identify and evaluate hazards in oxygen systems; understand the fundamentals of safe practice in design, materials selection and operation of oxygen systems; recognize the physical principles and empirical observations on which these safe practices are based; collect the information needed to cope with fire hazards in oxygen systems; use American Society of Testing Materials standards and other documents to improve judgment and support decisions about oxygen systems; compare the BAM and American Society of Testing

Materials test methods and safety philosophy and visualize the concepts by working out selected applications and exercises in class. The class would benefit engineers, scientists, technicians, purchasing agents, plant managers/operators and safety professionals involved in production or use of liquid or gaseous oxygen or of oxygen enriched gas mixtures, or who supply design or manufacture hardware for oxygen service.

All attendees completing "Fire Hazards in Oxygen Systems" will receive a certificate of completion and are eligible for continuing education units. Employees interested in taking this class should contact the Safety Learning Center at x36369 no later than Aug. 1.

## Goldin to speak at NTA Houston conference

NASA Administrator Daniel S. Goldin will be the featured speaker at the 67th annual National Technical Association conference to be held from July 19-22 at the Westin Galleria Hotel.

Goldin will discuss "America's Future in Space Exploration" to NTA members that consist of distinguished African-American scientists and engineers at 7 p.m. on July 20.

"Our challenge is to ensure that minorities, women and youth in particular, will be skilled enough in the sciences to be architects of the technology required for workforce 2000 and beyond," said NTA Executive Director Dr. Mildred Fitzgerald-Johnson. "This year's overall conference theme is 'Global Information Space and Education' which is consistent with President Clinton's goal for improving America's information infrastructure, quality of life, education and economic strength through science and technology initiatives."

A separate theme is highlighted

for each day of the conference to cover a full range of topics important to Black scientists and engineers. Day one is dedicated to global information, day two's focus is aerospace and day three will center on education.

The National Technical Association is celebrating its 70th anniversary as the oldest Black technical organization in the country.

"NTA's mission is to be a minority voice in mathematics, science, engineering and technology," said Carrington Stewart, Houston NTA conference coordinator.

This year's NTA conference will also include the presentation of Technical Achiever Image Awards designed to promote and recognize special achievements of African Americans in architecture, engineering, mathematics, science, computer science, science education, technical business and institutions.

For more information contact Teresa Williams at x38509.

## NCMA to host seminar

JSC and the Space City Chapter of the National Contract Management Association are co-sponsoring a seminar entitled "Completion Form Contracting" from 8 a.m.-noon Thursday in the Teague Auditorium.

The seminar format includes government and JSC contractor representatives who will address management of completion form contracts, paradigm shifts that are necessary for a successful conversion and how to deal with impediments during the process. In addition, the seminar

includes a view of the agency's perspective by Dee Lee, associate administrator for Procurement; a panel discussion and a question and answer session.

To ensure that seating is adequate, each directorate/office should submit a registration form, signed by the chief, which lists the names of government employees who will attend to BA/C.C. de la Garza, by today. Contractor employees should contact Mary Kerber at 486-9264.

If more information, contact de la Garza at x33258.

## Historic handshake in space continues cooperation begun 20 years ago

(Continued from Page 1)

The two vehicles, one a space truck capable of hauling international modules and science experiments into orbit and the other a continuous workplace and home for humans above the clouds, separated the following day with promises of future rendezvous still on the lips of the Russian and American crews. Landing was scheduled for this morning.

"We have started with the mission of Mir 18, STS-71 and Mir 19, what is intended to be and what will be a very long program, a very fruitful program," STS-71 Commander Hoot Gibson said. "STS-71 is going to be drawing to a close here in a very few days when we return with the crew of Mir 18 back to Earth. However, none of us feel like the mission is really going to be complete until we get not just our comrades, our compatriots from Mir 19, our very good friends, back to Earth," Gibson said in parting. "The bigger mission, the continuing mission, is a mission of many, many

years and that is going to continue long after we have landed and long after Mir 19 has landed. When we leave, Mir 19 is going to be very much in our hearts and in our thoughts."

"I hope we will meet in Moscow in August with our big crew and I think it was a really good job on the space station Mir and Atlantis," Mir 19 Commander Anatoly Solov'yev said. Gibson, Pilot Charlie Precourt, Mission Specialists Ellen Baker, Bonnie Dunbar and Greg Harbaugh, along with the Mir 18 crew, are scheduled to land at 9:56 a.m. CDT today at Kennedy Space Center, returning to the home port from which it departed at 2:32 p.m. June 27 when Florida skies finally cleared to allow a flawless, on-time launch

of the historic flight.

The landing will cap a highly successful mission that marked the first time U.S. and Russian space ships had linked up since the Apollo-Soyuz Test Program almost 20 years ago to the day. While the first U.S.-Russian effort did not immediately grow into a continuing cooperative effort, the commanders of *Atlantis* and *Mir* voiced strong hopes that this effort will be just the beginning of a successful International Space Station.

"I've been impressed with the fact that the things we did on this mission are exactly the sorts of things we need to do with space station and in the opinion of the crew here, things have flowed pretty smoothly," Gibson said. "Certainly the rendezvous and docking, all of the mechanisms, all of the machinery that had to operate operated in spectacular fashion and I think we've done a pretty good dry run for the sorts of things we need to do for an International Space Station. I think I speak for all of us when I say we feel pretty good about the way this mission has gone and what it portends for a future space station."

The farewells—which included gifts to the Mir crew that included tortillas and fresh fruit, STS-71 crew pins and watches, and a Houston Rockets T-shirt bearing the team's new emblem—immediately preceded simultaneous hatch closings over the Pacific Ocean.

"This is a new step in the creation of something (Konstantin) Tsiolkovsky at one time had dreamed about. All of these dreams have been practically implemented and are being implemented," said Mir 18's Gennadiy Strekalov.

*Atlantis's* landing will mean the end of a 100-

plus day flight for Norm Thagard, who now holds the American record for long-duration space flight after his four month stay aboard *Mir* with Vladimir Dezhurov and Strekalov.

"This is the way a space station ought to work," Thagard said. "You have a space station and a good transport vehicle. Our shuttle has solved some of the shortcomings of *Mir* space station which was lack of ability to transport things back to Earth at the end of the flight, and the space station has provided another goal and task and job for our space shuttle."

During five days of docked operations, the combined crew conducted in *Atlantis's* Spacelab module a host of joint U.S. and Russian biomedical investigations looking in particular at the effects the Mir 18 crew's stay in microgravity had on their bodies.

Medical samples and other materials associated with the Mir-18 crew members were loaded into *Atlantis* for the trip home. Equipment for the Mir 19 and future missions was transferred from the shuttle to the station.

By the time of the July 4 undocking at 6:09 a.m. CDT, more than one-half ton of water, along with 53 pounds of oxygen, and 80 pounds of nitrogen had been transferred to the space station, a cargo transfer effort requiring intensive cooperation by both crew on orbit and ground support teams in Houston and Moscow.

Before *Atlantis* undocked, Solov'yev and Nikolai Budarin climbed into the Soyuz craft that had brought Thagard, Dezhurov and Strekalov to *Mir*, undocked it from *Mir* and kept station and video cameras rolling as the American shuttle backed away from the Russian station.

"We have all three vehicles in sight at this point. In one of the simulations, the words 'cosmic ballet' came to mind and I guess that's where we are," Gibson said as he guided *Atlantis* away from *Mir*.

Gibson flew the shuttle to a flawless docking with the *Mir* station at 8 a.m. June 29 above Ulan-Ude, Burgatia, in Russia, exactly on schedule while the two spacecraft were 216 nautical miles above the Lake Baykal region of the Russian Federation. Harbaugh then engaged the docking mechanism to firmly latch the spacecraft together, creating the single largest spacecraft ever to orbit with a total mass of almost one-half million pounds.

After leak checks were completed and hatches opened, a grinning pair of spacecraft commanders grasped hands in the docking tunnel to the applause of their crewmates, who soon were engaged in international greetings and operations.

Both crews offered thanks to the ground support teams that had made their meeting in orbit possible.

"All of the folks on the ground have done a spectacular job of putting together this very challenging mission," Gibson said. "We have reached another milestone in that mission, but as I mentioned earlier it is just one of the small milestones on a much greater journey. But at least we have begun that very long journey."

Gibson's final public farewell to his Mir 19 counterpart was a familiar one for sailors and aviators everywhere.

"Anatoly, I don't know how to say this in Russian, but we wish you fair winds and following seas and soft landings. We will count the days until you come back and we get to see you again," Gibson said.

